



Assessment of Military mLearning Trends



Combating Terrorism Technical Support Office



Project Description

Goal: Deliver an operational analysis of mLearning training and technologies to support a united DoD pathway forward.

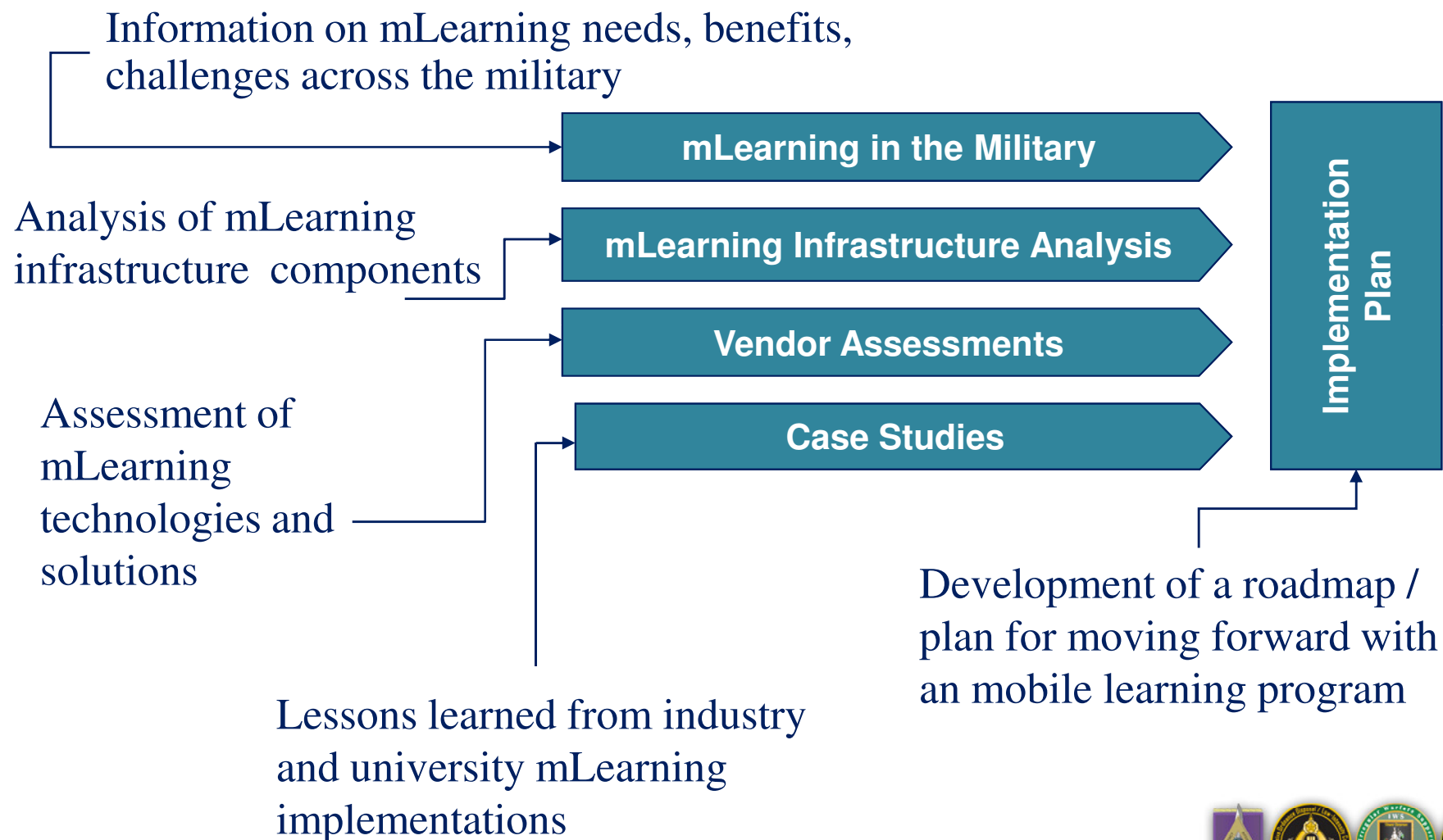
Intended Result: Current mLearning trends and likely future developments, specific military implications, and a recommendation of specific pilots, prototypes and investments which would benefit intended goal.

Status: Needs Analysis complete. Implementation Plan in progress. Expect to complete effort in fall of 2010.





Overview





Types of mLearning

- **Basic**
 - Read-only, non-customized for mobile content accessible on mobile devices
- **Intermediate**
 - Mobile-friendly content repurposed specifically for review (and generation) from a mobile handheld
- **Advanced**
 - Location-based or gaming and simulation applications





Military - Early Adopters

- Repurposing content for mobile devices
- Creating mobile applications for specific training
- Taking training offline and synching with Learning Management Systems (LMSs) to access on mobile devices
- Just-in-time, multimedia training
- Supplemental information to classroom and in the field training
- Mobile students scored 20-30% ahead of those without handhelds





Commercial Examples



Merrill Lynch

- Compliance courses for executives
- Leverage downtime
- 100% want more
- 45% Less time



- Loads live over WiFi
- Streaming content
- Service technicians through top executives
- Right time, right size, right content



- Comprehensive and integrated mLearning environment

EPOCRATES MOBILE CME

- Continuing medical education
- Multiple specialties
- Short 15-minute courses
- Free



- GPS-based
- Alternate reality
- Games-based learning
- Collaboration and teamwork



- 3D mobile guidebooks
- Local search and mapping made mobile and 3D
- Explore and discover





Case Study Lessons Learned

- A thorough audience analysis will help to identify employees' moments of need
- mLearning should not be viewed as a replacement to traditional learning methods, but as an enhancement
- Don't present mLearning as a training program, rather as a tool for employees
- Gain buy-in from all stakeholders and keep an innovative, lofty goal
- Identify the early adopters or champions in each group to pioneer/test the program
- There must be constant communication with stakeholders during implementation, including the IT team





Case Study Lessons Learned

- Formal training is effective, but many companies are finding that what mLearning can offer as performance support is the most valuable to employees
- Content must be designed for mLearning: Transferring existing content is not effective
- Security: Consider streaming all content so that no content is resident on any device
- Single device situations are optimal – make the device an employee's go-to device for all business needs
- Recognize employees' device preferences to ensure mLearning capitalizes on employees' usage trends
- mLearning should to contain a social aspect in order to be successful





Case Study Lessons Learned

- Consider designing mLearning to give employees a natural interchange to switch from traditional learning (via laptop) to mLearning (via mobile device) *if* the employee chooses
- Start contained and progress iteratively
- Employees will have different attitudes – based on job type, seniority, technology savviness – design your launch to address all users
- Avoid the “Shiny Object Syndrome”
- Rely on community infrastructure as much as technology infrastructure





Vendor Analysis

- CIT conducted an analysis of the vendors' technical and business capabilities
- Vendors were categorized into the following:
 - End-to-End Solutions
 - Learning Management Systems (LMS)
 - Authoring Tools
 - Services



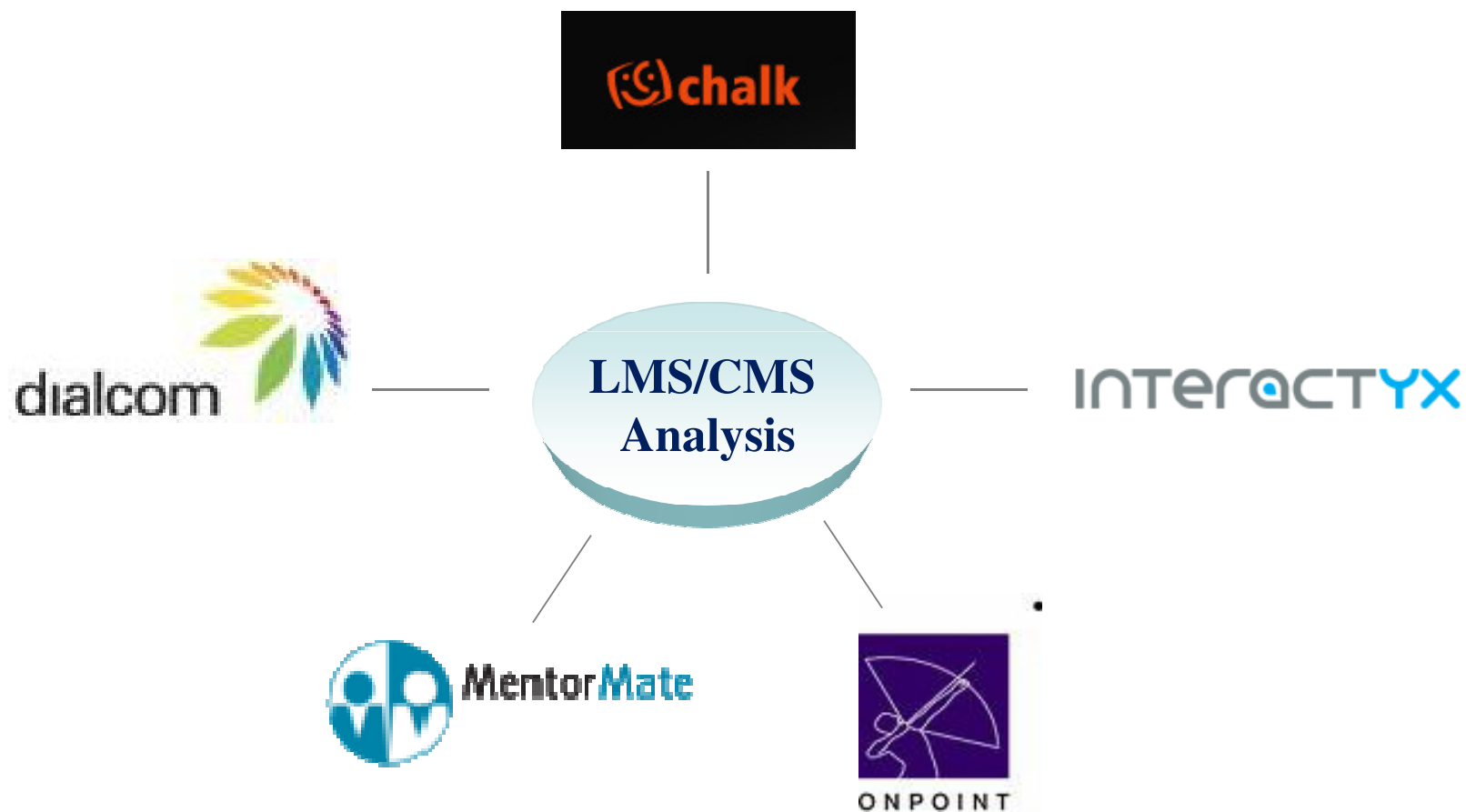


Vendor Analysis: End-to-End





Vendor Analysis: LMS / CMS



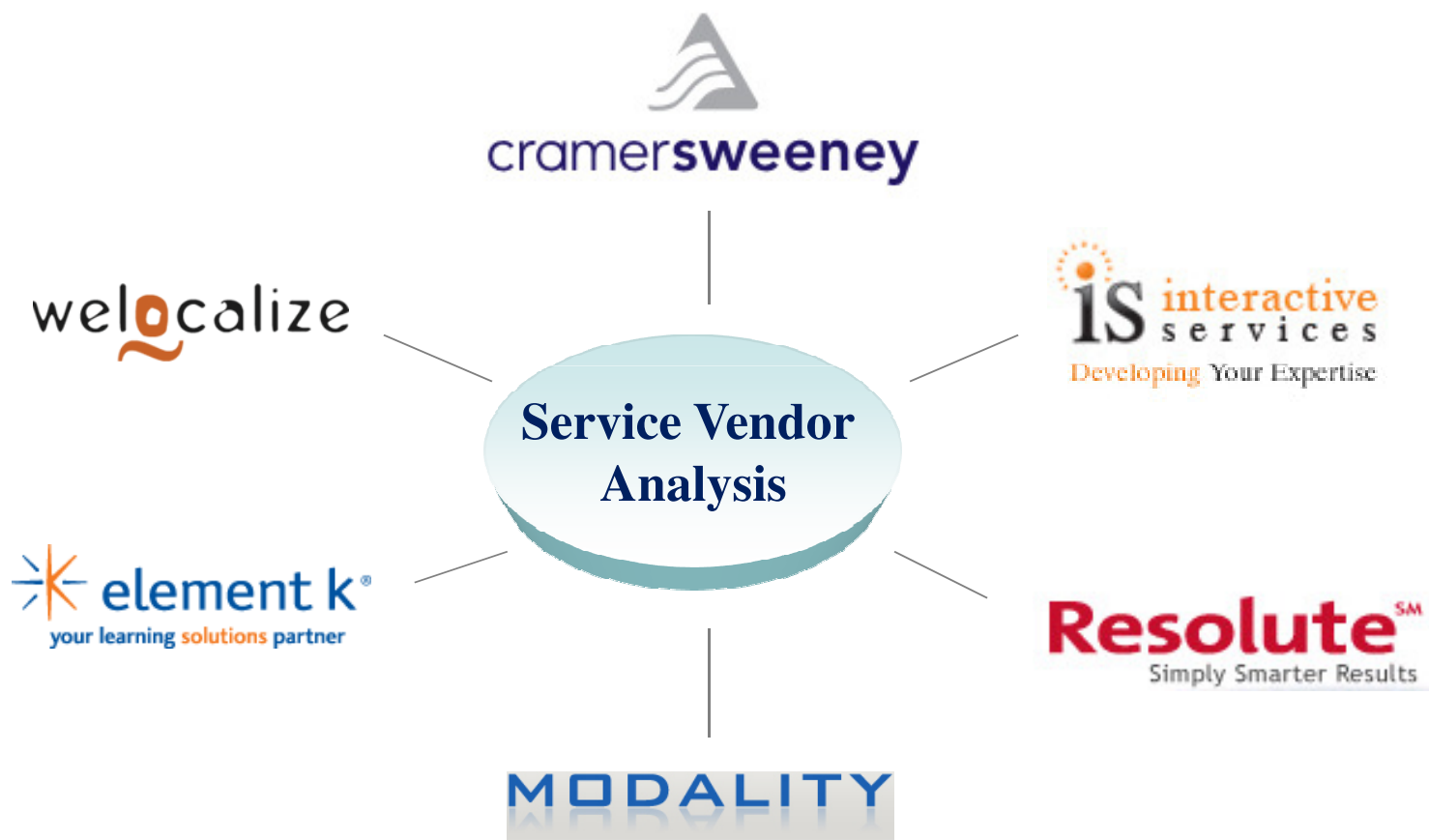


Vendor Analysis: Authoring Tools



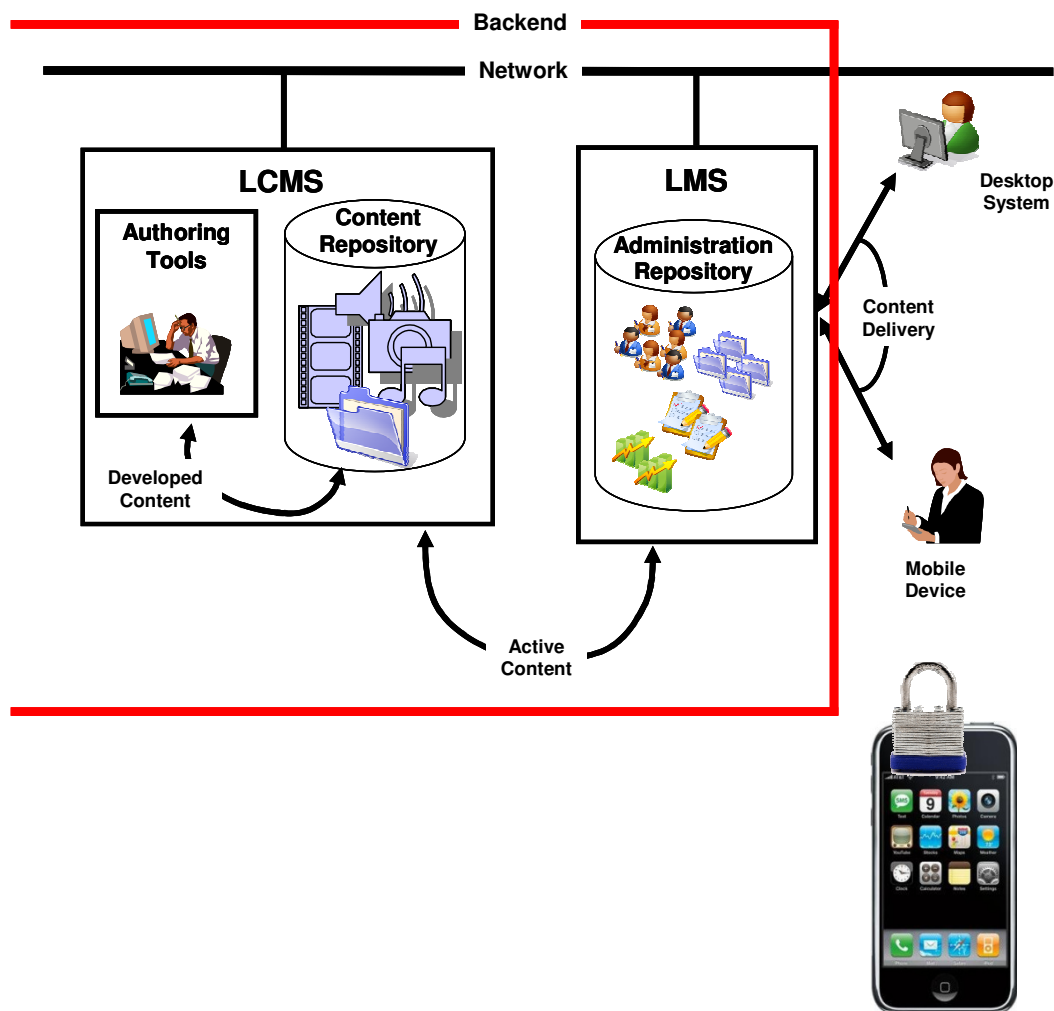


Vendor Analysis: Services





Technology and Infrastructure



- Mlearning Shares Common Backend Elearning Framework
- Sensitive Content Requires Data and Device Encryption
- Device Constraints Can Impact Content Design





Implementation Plan - Goal

The development of a specific implementation roadmap for the development of a mobile learning program across an enterprise.





Implementation Plan - Components

- **Stakeholder Identification** - understanding of roles and responsibilities associated with an implementation
- **Target Audience Analysis** – understanding to their mobile phone usage and content preferences
- **Infrastructure Requirements** – identification of specific technical and architecture layout for a pilot and enterprise-wide roll-out
- **Content Identification** – assessment of learning content suited for mobile learning
- **Deployment Strategy** – Roadmap for implementation of an mobile learning program
- **Transition Strategy** – Plans for transitioning the mlearning from pilot to enterprise-wide rollout
- **Operational Support Plan** – Requirements for sustained operations

